Dear Dr. Kikkawa:

In response to your letter of April 1, I enclose four strains of E. coli: K-12, 58-161; W-1177; and W-1485. The first three of these are described in my papers. W-1177 is you are not otherwise familiar with it is a multiple marker stocks T-L-B₁- Lac₁- Mal₁- Gal- Mtl- Xyl- S^r V₁^r, useful for recombination studies. We do not have any other auxotrophic mutants that would be pertinent to your investigations; as explained in my last letter we have not emphasized the development of stocks for biochemical genetics. I trust you will have no difficulties in securing additional mutants from K-12 or other strains.

W-1485 is an indicator strain, sensitive to the phage <u>lambda</u> carried by K-12. It is directly derived from K-12. I have recently received a request for these two strains from your compatriot: Professor Itaru Watanabie at the Institute of Science and Technology, University of Tokyp; 856, Komaba, Meguro-ku. I would appreciate the favor if you would forward subcultures to him with my compliments.

I hope you have no difficulties in reviving the strains. Simply open the tubes and transfer the paper strip to broth; the granules will do no harm.

Yours sincerely,

Joshua Lederberg

P.S. I will be pleased to hear if you have any success intercrossing K-12 with your strains.